

Greening of the Heartland

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Green Power Market in 12 States of the Great Lakes Midwest

Least De-Regulated Region of US

Untapped Potential for Renewables

Emerging Green Power Market

- **40 Utility Green Options – Mostly Wind**
- **Predominantly Public Power Programs**
- **Getting to Green in 3 De-Regulated States**

Least De-Regulated US Region

Steady Coal, Fading Nukes, New Gas Plants

Retail Competition Only in 3 of 12 States

Illinois, Michigan & Ohio

Electric Rates Down Across Region

in First 5 Years of Electric Restructuring

Midwest Electric Rate Changes 1996 to 2002

Average Electric Rates/kWh – Year to Date December 1996 & 2001 Not Adjusted for Inflation

	96	01	%	96	01	%	96	01	%
East North Central:	Residential			Commercial			Industrial		
• Illinois	10.3	7.8	-24.3	8.0	6.2	-22.5	5.2	4.1	-21.2
• Indiana	6.8	6.3	-7.4	5.9	5.6	-5.1	3.9	3.8	-2.6
• Michigan	8.5	8.2	-3.5	7.9	7.6	-3.8	5.1	5.2	2.0
• Ohio	8.6	7.6	-11.6	7.7	7.5	-2.6	4.2	4.6	9.5
• Wisconsin	6.9	7.6	10.1	5.7	6.1	7.0	3.7	4.2	13.5
West North Central:									
• Iowa	8.2	7.7	-6.1	6.5	6.3	-3.1	3.9	3.8	-2.6
• Kansas	7.9	7.0	-11.4	6.7	5.9	-11.9	4.7	4.6	-2.1
• Minnesota	7.1	7.1	0.0	6.1	5.2	-14.8	4.3	4.7	9.3
• Missouri	7.1	6.0	-15.5	6.0	5.2	-13.3	4.4	4.1	-6.8
• Nebraska	6.3	5.5	-12.7	5.5	5.0	-9.1	3.7	3.6	-2.7
• North Dakota	6.2	5.8	-6.5	6.1	5.5	-9.8	4.4	3.8	-13.6
• South Dakota	7.0	6.8	-2.9	6.6	6.1	-7.6	4.5	4.3	-4.4

Source: PennFuture, *Electricity Competition: Story Behind the Headlines*, August 2002

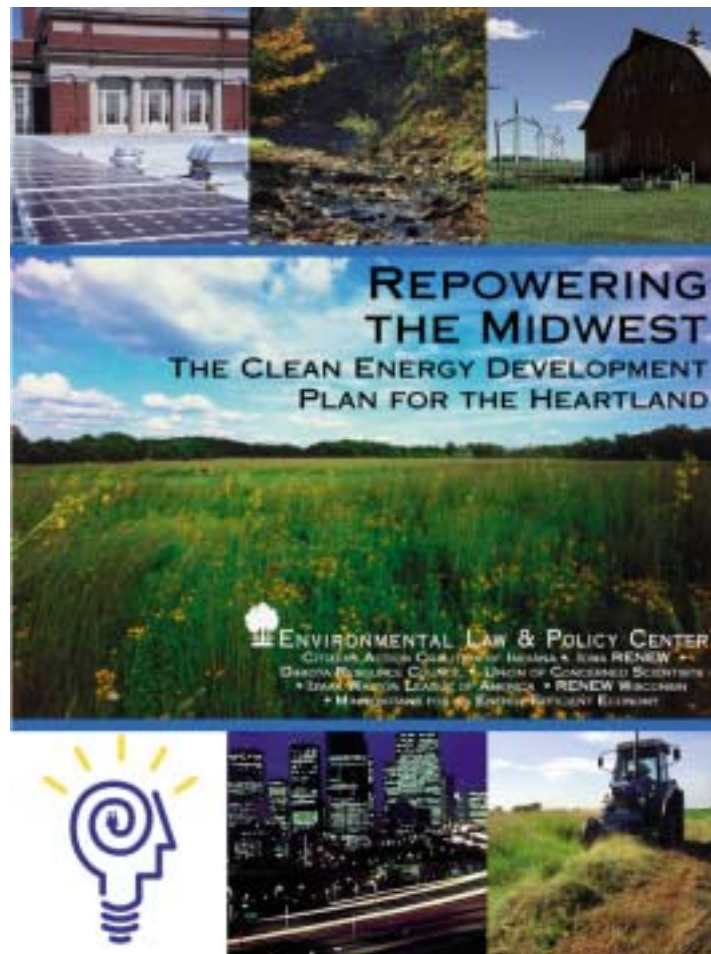
Repowering the Midwest

Environmental Law & Policy Center

[<www.repowermidwest.org>](http://www.repowermidwest.org)

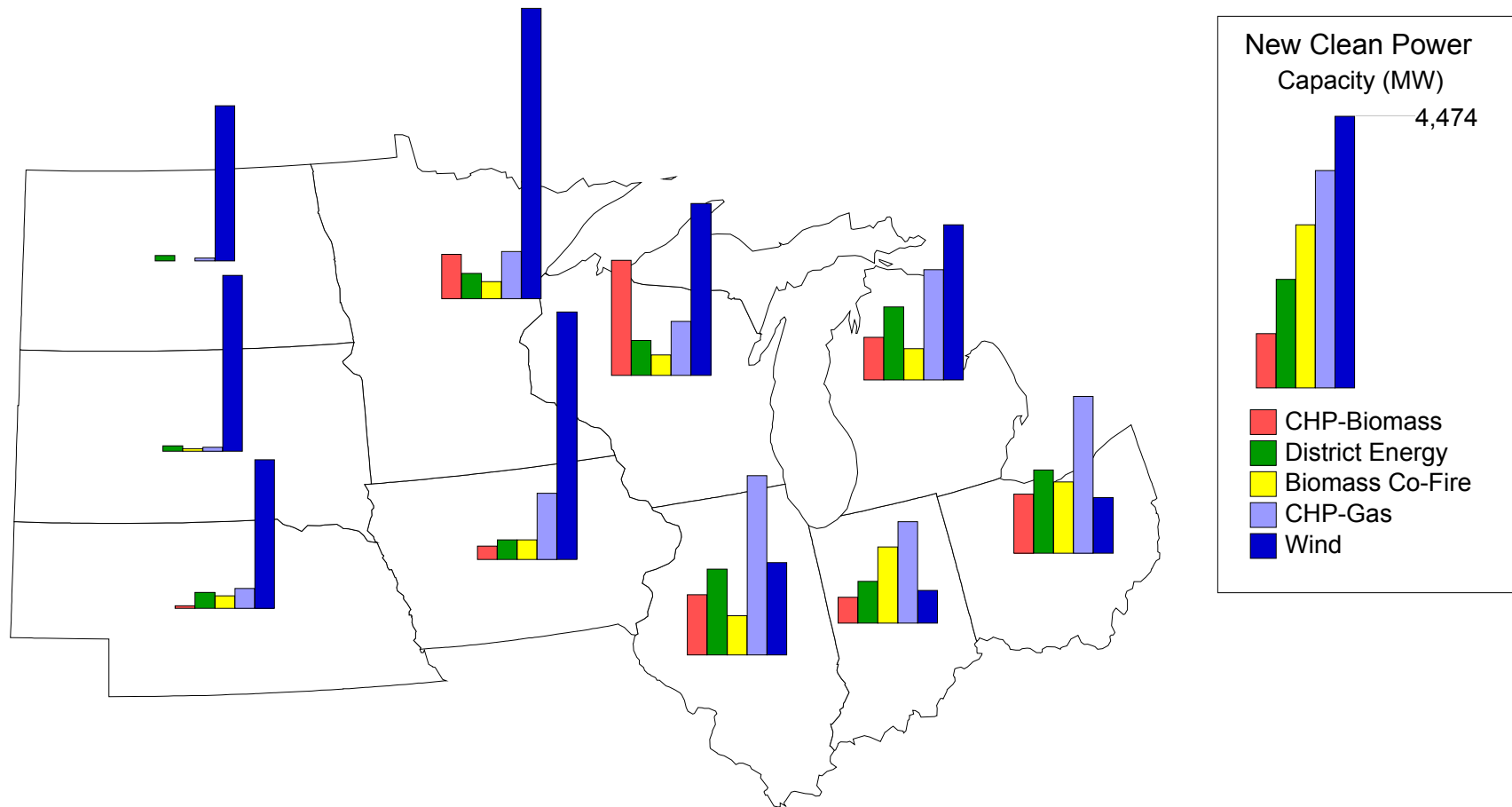
The Clean Energy Development Plan:

- Aggressively implements the newest as well as "tried and true" energy efficiency technologies.
- **Develops and implements renewable energy technologies, including wind, biomass and solar power, so that they provide 8% of the region's electricity generation by 2010 and 22% by 2020.**
- Develops and implements efficient natural gas uses in appropriate locations, especially combined heat and power (CHP), district energy systems and fuel cells, so that they provide 10% of the region's electricity generation by 2010, and 25% by 2020.
- Retires selected older, less-efficient and highly polluting coal plants.
- Applies sustainable development strategies to aggressively link environmental improvement policies to economic development.



- February 2001

State by State Potential for Clean Energy in *Repowering the Midwest*

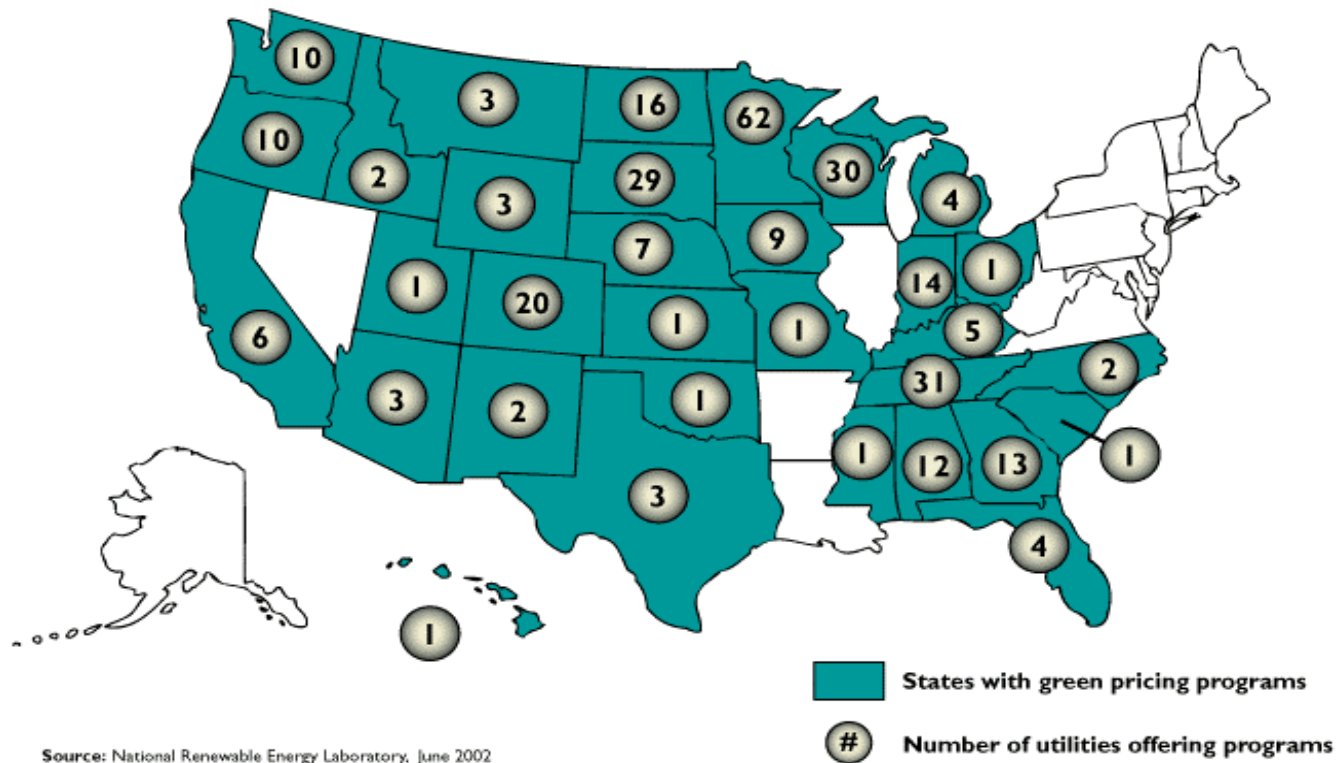


Emerging Green Power Market in the Midwest

- **40 Utility Green Offerings in 168 Utilities**
Wisconsin & Minnesota > 50% of Utilities
- **Predominantly Public Power & Wind Power**
- **Getting to Green in the Region's**
3 De-Regulated States:
Illinois, Michigan & Ohio

EREN Green Power Network's Midwest View

Utility Green Pricing Activities



Source: National Renewable Energy Laboratory, June 2002

40 Green Pricing Programs in 168 Midwest Utilities

Green Pricing Program by Utility Type

East North Central:	Investor	Municipal	Rural Co-op	Total Utilities
• Illinois	-	-	-	-
• Indiana	2	-	2	14
• Michigan	1	2	1	9
• Ohio	-	1	-	1
• Wisconsin	5	2	-	30
West North Central:				
• Iowa	1	2	6	9
• Kansas	1	-	-	1
• Minnesota	3	3	3	9
• Missouri	1	-	-	1
• Nebraska	-	5	-	1
• North Dakota	-	-	2	16
• South Dakota	-	1	1	29
Totals:	14	17	15	168

Midwest Wind Powers **Green**

<i>Green Pricing Programs by Renewable Energy Type</i>						Total
East North Central:	Wind	Biomass	Solar	Hydro	Other	Programs
• Illinois	-	-	-	-	-	-
• Indiana	1	3	1	-	1	4
• Michigan	2	1	1	1	1	4
• Ohio	-	-	1	1	-	1
• Wisconsin	5	4	1	2	-	7
West North Central:						
• Iowa	3	1	-	-	-	4
• Kansas	1	-	-	-	-	1
• Minnesota	9	-	-	-	-	9
• Missouri	1	-	-	-	-	1
• Nebraska	4	2	-	-	1	5
• North Dakota	2	-	-	-	-	2
• South Dakota	2	2	-	-	-	2
Totals:	30	13	4	4	3	40

Source: EREN Green Power Network

Getting to Green: Illinois

Green Power on the Way:

- **1st Wind Farm Feeds Exelon & Chicago**
- **Chicago Sets 20% Renewable Portfolio**
- **Green Power Standard: (ELPC, CUB)**
 - New Renewables Only: 2/3 Wind & Solar**
- **5 MW Goal for Solar in Chicago by 2005**

Getting to Green: Michigan

Green Power Startups:

- **Building on 4 Green Offerings:
DTE, Consumers, Traverse City, Lansing**
- **Green Power Exchange - MIPPA
<www.greenpowerx.com>**
- **NextEnergy: Fuel Cells & Renewables**
- **PSC Renewable Energy Program**

Getting to Green: Ohio

Green Power Flowing Soon:

- **NOPEC/Green Mountain Energy (GME)
Muni Aggregation – New Solar & Wind**
- **Ohio Green e Standard Set**
- **Wind Power Likely: Muni Utilities & GME**
- **Green Energy Ohio (GEO) Promoting
Green Power/New Solar & Wind**

Greening the Heartland

Conclusions:

- ☐ Green Power has yet to reach most Midwest Investor-Owned Electric Utility Consumers – despite Public Power offerings
- ☐ Transmission Access and/or New Incentives needed to develop Green Generators
- ☐ Region's 3 De-Regulated States moving towards Retail Choices for Green Power – may become models for IOUs in 9 Regulated States